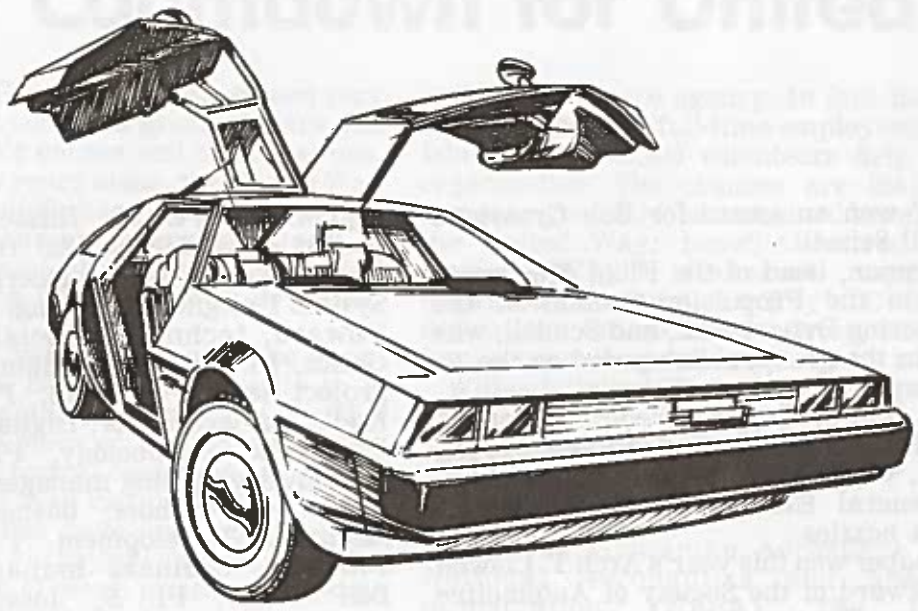
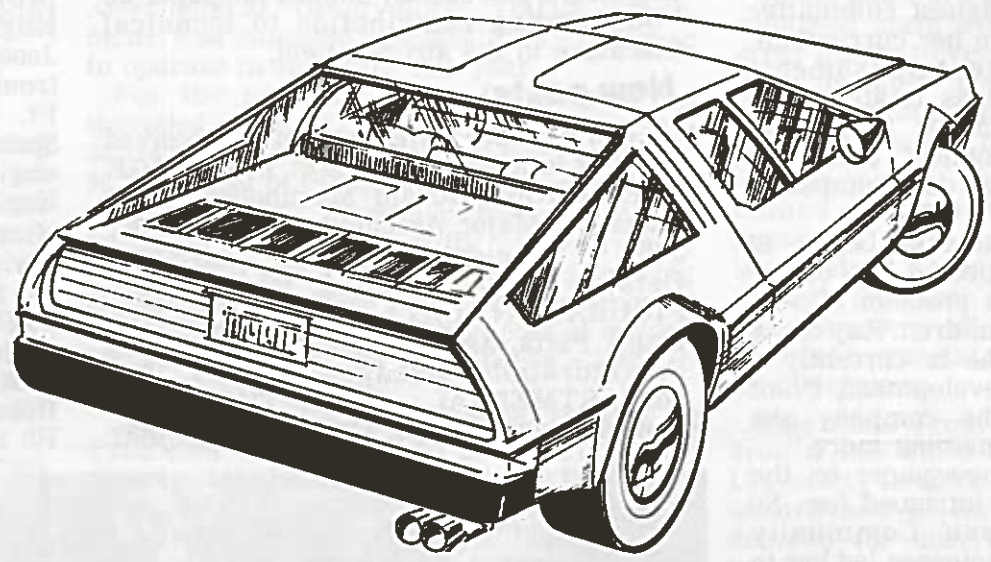
GRUMMAN plane news





DMC pact helps pave new roads for Grumman

Imagine a car that never rusts and never needs painting or waxing. A car that can be cleaned with soft dish detergent; a car, whose finish is made of stainless steel and yet weighs only 2200 pounds. No need to imagine any longer, the car is about to be made, and Grumman is going to help build it.

Grumman Aerospace and the new DeLorean Motor Company (DMC) signed a contract on August 9. Grumman will design and fabricate six non-metallic prototype roofs for DeLorean's sports car, a rear-engine, two-seat automobile with gullwing doors that is slated to sell for around $15,000. The contract is valued at $300,000, and has follow-on provisions.

"This is our initial venture into an enormous market, automotive components," says Mike Pelehach, senior vice president Business Development, "yet it is a logical extension to utilize our expertise in advanced composites. We are going to apply aerospace technology in the engineering of an automobile whose body / chassis is made entirely of plastic. It is a significant breakthrough for us."

The DeLorean propotypes will be built with a plastic body / chassis and stainless steel covering. Only the crossmember and the subframe, which houses the rear-mounted engine, will be made of steel. The gullwing doors for the DMC, open up, not out, and must be supported by struts and the roof panel.

It is this panel that Grumman Aerospace is designing and fabricating. The roof panels will be used in vehicles that must undergo some severe tests before the roof is deemed qualified for production.

"One of the tests that is crucial," says Art August, director, New Products Development, "is based on meeting the Department of Transportation's new roll-over specification, where you have to demonstrate the ability of the roof to withstand one and one-half times the weight of the car. Grumman's design will satisfy this requirement by using a combination of fiberglass and graphite fiber reinforcement in the roof structure."

The roof structure is actually a plastic sandwich or laminate. One form of the process starts out with two half-inch thick pieces of open-cell urethane foam which forms the core of the laminate. Epoxy resin is placed between the foam, then a layer of fiberglass / graphite mat or cloth is placed on each side of the foam. The sandwich is then put into a press and compressed at from 50-150 psi, forcing the resin through the foam into the mat and out against the surfaces of the mold. The completed laminate is less than 0.2 inches thick and is stiffer than other plastics used in the automobiles currently being manufactured. The process is called Elastic Reservoir Molding or ERM.

As part of the contractual agreement, Grumman will be licensed to use the ERM process throughout its subsidiaries. "The laminate may someday be used in such Grumman products as trucks and Flxible busses," states Pelehach. "and it is not inconceivable that a Grumman canoe might be made entirely from the ERM laminate. The canoe would be even lighter and stronger than the current aluminum and fiberglass models."

During the Research and Development stage, the roof panels will be fabricated in Bethpage. The R & D contract calls for six room panels to be completed in the next seven months.

"Our knowledge of advanced composites is beginning to pay dividends," says Art, "Also, the DeLorean people were impressed by our aerospace manufacturing methods for a new

(Continued on Page 9)

people

Head of the class

Kay Rash is not your ordinary graduate. In fact, she's quite extraordinary.

Kay recently received an associates degree in Biological Technology from the State University of New York at Farmingdale -- the culmination of 10 years of hard work. In addition, Kay was honored for her outstanding scholastic achievement of having received the highest cumulative average of any student in her curriculum.

Kay views her accomplishments modestly. "The award was totally unexpected," she says. "I never thought of myself as competing against others; I always thought that I was only competing against myself."

Kay's interest in academia began 12 years ago with the unexpected loss of her husband. Faced with the problem of supporting herself and four children, Kay came to Grumman in 1962. She is currently a secretary in Business Development, Plant 5. Soon after joining the company she decided she wanted "something more."

An article in a local newspaper on the subject of oceanography intrigued her. So Kay enrolled in Nassau Community College. Exposure to the sciences led her to investigate further. Within a year, Kay had transferred to Farmingdale where she found a wider range of subjects available.

It was then that Kay's interest deepened. She selected a major, Biological Technology, and plunged head-long into a curriculum that required two-hour labs and three-hour lectures. Kay describes her courses as, "very, very difficult. In the sciences," she says, "you either know it or you don't."

"At times," admits Kay, "I was ready to give up." It was her four children who bolstered her spirits during the different periods. "They were wonderful," says Kay, "right in there pitching along with me."

Kay financed her education completely on her own. "I'm an independent sort of person." She smiles, "I had to do this by myself."

And how does it feel to be a scholastic honor winner? In terms of personal fulfillment, Kay Rash couldn't be happier. In her own words, she explains, "One of the biggest thrills of my life was sitting there at graduation and seeing my three daughters and my youngest grand-daughter in the audience. I got a lump in my throat."

Duet

It won't be on the New York Times list of light summer reading...but "A Comparison of Non-Axisymmetric and Axisymmetric Nozzles Installed on a V/STOL Fighter Model" won an award for Bob Grossman and Bill Schnell.

Grossman, head of the Fluid Mechanics group in the Propulsion Section of the Engineering Department, and Schnell, who works in the group, collaborated on the 20-page paper.

Greg Hoff of General Electric Company was also a contributing author on the project, which grew out of a joint Grumman-General Electric study on aircraft exhaust nozzles.

The paper won this year's Arch T. Colwell Merit Award of the Society of Automotive Engineers. The society dubbed the paper an "outstanding contribution to technical literature in the aircraft field."

New posts

Among those who recently received changes in assigments were: BETHPAGE OPERATIONS--Donald Martinolich, plant manager, Major Assemblies, Pl. 2 & 36; John Scheider, plant manager, Details/Sub-Assemblies, Pl. 2; CONFIGURATION/DATA MANAGEMENT--Frank Petta, assistant program manager, Configuration Management, Pl. 25; DEPARTMENTAL OPERATIONS--John Connelly, group head, Optics and Display Equipment, Pl. 35; Russell Hagerman, section head, Mechanical Design, Pl. 35; Ilmars Hofmanis, engineering specialist, System Design Engineering, Pl. 5; William Howard, technical specialist, Electro-Optics, Pl. 14; George Hummel, software project leader, NEWTS, Pl. 4; Ronald Kudla, project leader, Digital Engineering Equipment Technology, Pl. 4; Gerald McNiff, engineering manager, TAWDS, Pl. 40; John Peronnet, business manager, Advanced Development, Pl. 5; Martin Plawsky, business manager, Trainer B&P/IR&D, Pl. 5; Joseph Ricciardi, project leader, Systems Design Engineering Equipment Technology; Joseph Russo, project engineer, Electronic/Electrical Engineering Technology, Pl. 4; Louis Sokol,, business manager, Space/Energy, Pl. 25; Robert Spencer, engineering specialist, System Design Engineering Equipment Technology, Pl. 40; Nicholas Szuchy, group head, Trainers/Simulators, Equipment Technology, Pl. 35; Ric Trotta, business manager, ILS B&P/IR&D, Pl. 5; and Jerry Winsten, business manager, Aircraft/Marine, Pl. 5; E-2C PROGRAM MANAGEMENT -- Robert Burtis, program, E-2C Operations, Pl. 25.

Happy Days. *Once again, McKay Field in Bethpage has been the site of numerous department summer picnics. This year, Machine Operations decided to throw a 'Fifties' party – and everyone got into the act. (Photo by Marie Trimborn.)*

Begin Countdown for United Way Campaign

Traditionally, Grummanites have been very generous when it comes to giving dollars and time to charitable causes and organizations. Over the past two years alone, the United Way of Nassau and Suffolk has received well over $1-million from Grumman men and women. In fact, many Grummanites give to the United Way all year long via the payroll deduction method.

Beginning this year, seven of these year-round givers will be honored annually in a special "Appreciation Drawing." The drawing will take place on September 11, two weeks prior to the formal beginning of the 1978 Grumman-United Way campaign.

Grummanites who have been contributing to the United Way via payroll deduction will be eligible to win one of seven prizes; a four-day weekend in Las Vegas for two, a Grumman canoe and five sets of Grumman glasses will go to seven lucky givers.

More to come

In addition, Grumman will be sponsoring the traditional prize drawings in which all Grumman men and women contributing to the United Way are eligible to enter. Details will be announced in the next issue of PLANE NEWS on Friday, September 22.

This year, Joe Gavin, Grumman Corporation President, has been named campaign chairman for the United Way of Long Island. Tom Kelly, Grumman Aerospace Vice President: Engineering, is the chairman of the Grumman-United Way campaign, which for the first time includes Grumman Corporation and all subsidiaries.

"Last year, over 18,000 Grummanites, 91 percent of Grumman, gave to the United Way" says Kelly, "These Grummanites contributed over 15 percent of the total contributions given to United Way on Long Island. Combine that with Grumman Corporation's donation, United Way received over three quarters of a million dollars from Grumman and its people." This year Kelly has set a goal of 95.. participation.

The United Way is one of the most efficiently run charitable organizations. About 86 cents out of every dollar donated goes directly to some human-care agency. In fact the United Way has only five full-time employees on Long Island. Over 15,000 volunteers help run the organization. The chances are that you or someone you know has received benefits from the United Way; benefits derived through United Way's financial support of organizations such as Boy's Clubs, Girl Scouts, the American Red Cross, YMCA and family counciling services to name just a few.

Without United Way, these services would be drastically curtailed or perhaps even phased out altogether. Thanks to the generosity of more than 90 percent of Grummanites and other Long Islanders, the United Way will be able to continue to aid the 100 agencies it has been supporting.

Before the Grumman campaign begins, Tom Kelly and a team of Grumman men and women will tour some of the area's agencies to get a first-hand view of the local services available to Long Islanders.

Copernicus keeps on trekking

Copernicus lives.

Built by Grumman Aerospace for the National Aeronautics and Space Administration (NASA), the Orbiting Astronomical Observatory, OAO-3 Copernicus, was launched in August 1972 -- designed to operate in space for one year.

For the past six years, Copernicus has travelled over 881.9-million .miles, logging 31,714 orbits; its systems have been available 98.15 percent of the time for experimentation.

Over the years, Copernicus has provided the scientific community with an extremely reliable and efficient observatory, delivering unique scientific data -- such as the study of 25,000 stars and the measurements of oxygen and ozone in the upper atmosphere -- back to earth.

This past June, Dr. Ronald Polidan of Princeton University told the Astronomical Society of the Pacific at a lecture in Park City, Utah, that he and a team of British scientists found what they believe to be a "black hole" in the constellation Scorpio. By utilizing the Copernicus statellite, the scientists discovered this after two months of experiments with the X-ray astronomy satellite Copernicus.

Black holes are believed to be super dense collapsed stars with a gravitational pull so great that not even light can escape, making them invisible. The only other known black hole is Cygnus X-1 in the constellation Cygnus, the Swan seen in the northern sky.

In the case of Cygnus and the new black hole named Scorpio V-861, the astronomers measured X-rays being drawn away from large stars. X-rays cannot be measured through the earth's opaque atmosphere, but the discovery of black holes was made possible by special atronomical satellites such as Copernicus.

Scientists from the United States and around the world have used the Princeton University telescope the principal instrument aboard the OAO, for various experiments. The demand for observing time is now at its highest level since the August 1972 launch.

Latest off the line. *The Oregon Army National Guard (OANG) recently arrived at Stuart Operations, Florida, to pick up six OV-1D Mohawk aircraft. OANG is the first Guard unit to receive the newly modified OV-1D. On hand at the exchange of log books were: (L to r) Lt. Col. Max Davison, Commanding Officer of DCAS at Stuart; Capt. Steve Hammons of OANG; Charles Elsie, Logistics Manager, SEMA-PM; Brig. Gen. Claude "Joe" Biehn, Assistant Adjutant General for Oregon; Tom Doyle, OV-1 Program Manager; Ed Dalva, Vice President and General Manager Stuart Ops; Jim Flowers, OV-1 Assistant Program Manager; and CW3 Kurt Degner of OANG.*

GRUMMAN plane news

Published twice a month for the employees of Grumman Aerospace Corporation, Bethpage, N.Y. 11714, as a function of the Public Affairs Department, Brian Masterson, director.

Editor
Kathy Housley
Ext. 3293

Associate Editors
Wally Kalinyak Ext. 5119
Norine Lyons Ext. 5118

Editorial Assistant
Kristin Lane
Ext. 8999

Plane News from outside line: (516) 575-8999

Great River hosts. *At Great River's first pin meeting, Grumman Corporation Chairman Jack Bierwirth and Grumman Aerospace Chairman and President George Skurla personally congratulated members of the Grumman family who attained service milestones. It was Bierwirth's first visit to the Great River facility (above right). Bruno Caputo, general manager, escorted both Bierwirth and Skurla (show above L with Caputo) around the South Shore facility.*

What's happening around the company

James A. Linen, former President of Time Incorporated, has been elected to the Board of Directors of Grumman Corporation.

A graduate of Williams College, Linen went to work on the editorial staff of TIME magazine in 1934, and then in its advertising department. In 1938 he accepted an assignment in LIFE's advertising department and became that magazine's advertising manager.

Early in World War II, he joined the Foreign Information Service, and worked on psychological warfare and information programs. His final wartime assignment was to head the Office of War Information in Italy and the Balkans.

The new Grumman Corporation director became publisher of TIME in 1945, the position he held until his election as President of Time Inc. in 1960. He also served as Chairman of the Executive Committee from August 1969 until April 1974.

He has long been active in education and community affairs at both national and local levels.

Get more energy pacts

Grumman's Energy Conservation Services Group continues to reel in energy conservation study contracts. Under three new contracts totalling over $1-million, Grumman will conduct energy conservation surveys and analyses for the Navy's Naval Air Rework Facility at Norfolk, Va.; the Department of Energy's facilities at the Savannah River Plant, Aiken, South Carolina; and at the Oak Ridge Operation Office's Y-12 Plant, Oak Ridge, Tenn.

Tom Cunniffe, director of Facilities Engineering, attributes these new awards to the "successful energy conservation work performed in our own facilities, and for the contracted work in support of the NASA Energy Conservation Program and for the current efforts underway with the Department of Energy's Alburquerque Operations Office."

Since 1976, the Energy Conservation Services Group has received over $7-million of contract work from the Federal government.

Long live the Tracker

Canada's Department of National Defence recently awarded Grumman Aerospace a $258,256 contract for a life extension study of the CS-2F.

The CS-2F is a Canadian version of the S2F Anti-Submarine Warfare (ASW) aircraft built by Grumman for the U.S. Navy from 1953-1960. Under license, the DeHavilland Company of Canada manufactured 100 S2F Trackers for Canada. The first 43 Aircraft (S2F-1) were delivered from December '55 to June '58. The remaining 57 S2F-2 aircraft were delivered from 1958-60.

To improve ASW capability, 45 of these aircraft were later modified to the CS2F-3 configuration. When Canada retired its last aircraft carrier in 1968, the ASW equipment and catapult and arresting gear systems were removed.

Under this new Canadian government contract, Grumman's Special Support Program of the ILS Department will study the economic feasibility of extending the life of the Canadian Tracker.

In a related effort, Al Durner who's heading up the SSP team visited La Ronge, Saskatchewan, to check up on the six CS-2 Water-Bomber Aircraft operated by the Canadian Forestry Service. The visit resulted in the "un-grounding" of these six firefighter aircraft. In addition, the Grumman team inspected five CS-2's operated by the Ontario Ministry of Natural Resources and recommended a standard inspection and repair program.

Supply lowdown on airfares

Many Grummanites have been making inquiries regarding lower air fares based on advertising in newspapers and on radio and TV. There is a great deal of confusion generated by these advertising campaigns waged by the airlines, says John Marshall, director of Field Administration.

Offers by the airlines, such as "Excursion Rates," "No Frills," "Super Savers" and other reduced-fare programs, are accompanied by fine print and catch-phrases that must be explored in order to understand just what is being offered.

Marshall offers the following information to aid Grummanites in planning their next trip. Such reduced fares are for a specific duration and advance reservations; purchase of tickets must be made prior to booking on particular flights, i.e.,:

K Fare: Most K Class type travel is applicable to southern travel. Travel on Mon., Tues., or Wed., for $55.00. Travel on Thurs., Fri., Sat., or Sun., for $75.00.

H Fare: Minimum stay - 7 days; Maximum stay - 45 days. Must ticket 30 days prior to departure if reservations are made more than a month prior to departure.

B Fare: Must book 7 days prior to departure. Minimum stay - 7 days; Maximum stay - 30 days.

Note: 7 days minimum stay does not include day of departure or a Saturday. If reservations are made less than a month before departure, ticket must be written 10 days after reservation is made or 7 days before departure, whichever comes first.

Airlines designate that only a limited number of seats on an aircraft are available at lower fares. If the traveler does not meet all of the requirements above, he must pay the regular fare.

Further inquiries should be directed to Austin Travel, Ext. 8511, for business trips.

In the field

NAS Whidbey Island, Washington – Bob McNeill, Grumman Field Operations Site Manager, Pacific NW, recently became the first civilian recipient of the Sen. Henry M. Jackson award for leadership.

The presentation was made at the annual Intruder Ball attended by Vice Adm. Robert Coogan, Commander Naval Air Force U.S. Pacific Fleet, and more than 450 members of the A-6 community.

McNeill's name appeared as the Number One choice for the leadership award in nearly every letter of nomination submitted by commanding officers representing squadrons of the A-6 community.

At the Intruder Ball, his selection was greeted by a standing ovation. In congratulating McNeill, Cdr. Lyle Bull,

banquet master of ceremonies and commanding officer of VA-128, said it best:

"Not only do we like him. We trust him. Grumman only thinks he works for them. There is nobody on the base who works harder for us. (Those who operate and maintain the sophisticated aircraft which fly out of Whidbey.)"

Upon retiring from the Navy in 1958 after 20 years service, Bob joined Grumman as an engineering bombardier / navigator in Flight Test. It was there that he began his long association with the Intruder aircraft family by performing developmental flight testing on the A2F / A6A.

When the A-6A joined the fleet, Bob was on the scene in many ready rooms and support areas to assist in the introduction of the all-weather medium attack aircraft. During the Vietnam conflict, Bob served as technical advisor onboard attack carriers.

Since his arrival at Whidbey in 1966, Bob has continued to make "numerous significant contributions to fleet readiness. Working closely with Navy personneliat all levels, he fought vigorously to retain this attack aircraft in its infancy. His dedicated efforts and industriousness have ultimately led not only to the survival but to the follow-on superior versions of the Navy's All Weather Medium Attack aircraft," wrote one nominator.

The Jackson award has been given to naval commanders since 1970 by the Oak Harbor Council of Navy League. Judging from the audience response, the Intruder community was elated that Bob McNeill broke that tradition.

Super job

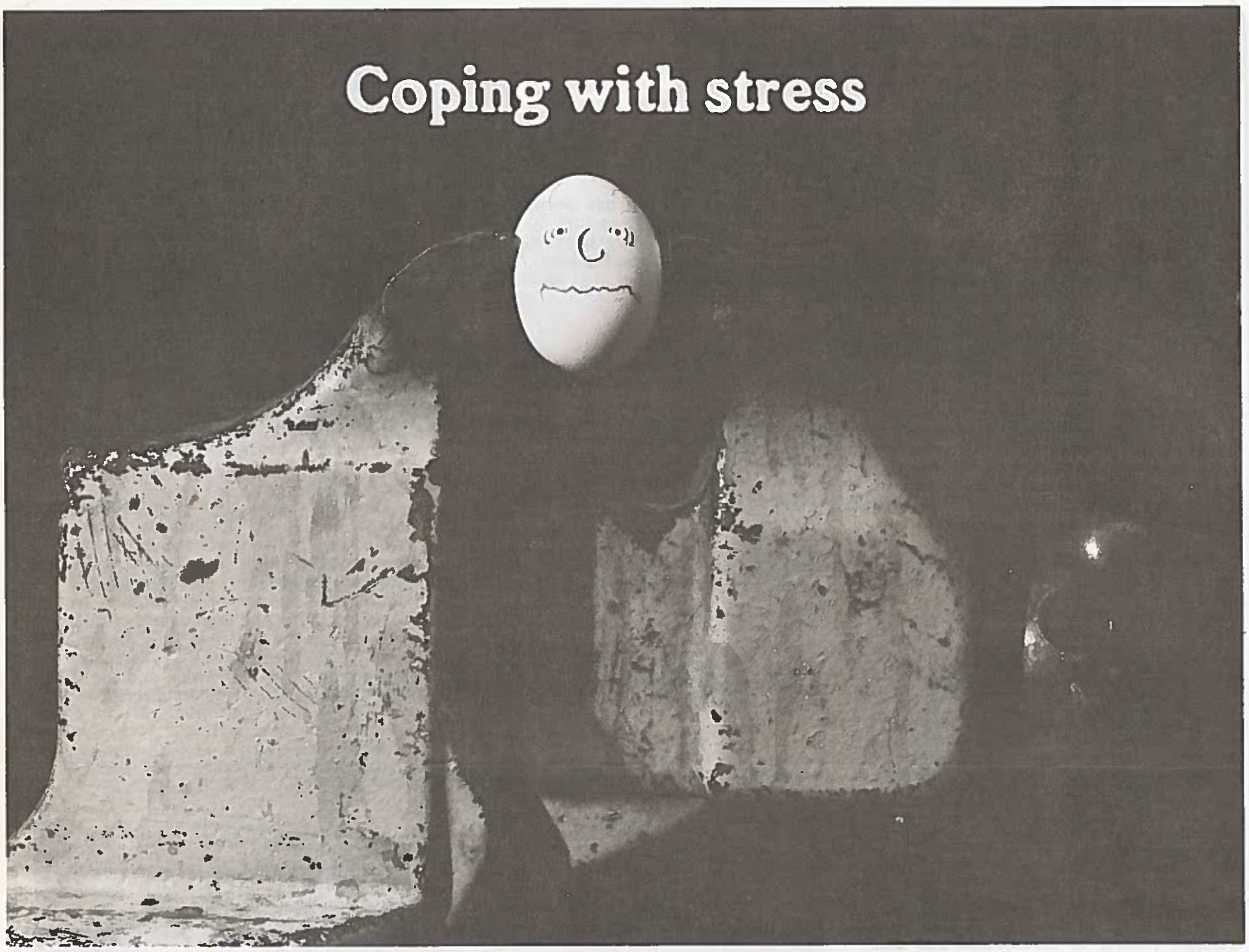
Vice Adm. Robert Coogan, commander of NAVPAC, appreciates the job Grummanites performed at Pt. Cubi Point, Philippines, recently. In a message to the Grumman F-14 Programs Office in Bethpage, Adm. Coogan stated: "During the period of May to July, a Grumman Aerospace team working with COMFAIRWESTPAC was given the task of checking and repairing the wing spoiler wiring of all VF-1 and VF-2 squadron aircraft. Despite the limited time available, and the long hours required, the team completed the testing, repair and documentation in time to insure that all the aircraft could be available for the USS Enterprise operational commitments. The dedication and hard work to accomplish this task is appreciated."

Air Test and Evaluation Squadron Four, VX-4, recently received the Chief of Naval Operations Annual Aviation Award for fiscal year 1977. Above, Rear Adm. F.G. Fellowes Jr., presents prestigious award to Capt. R.W. Burnett (R), commanding officer of VX-4.

Based at Naval Air Station (NAS) Point Mugu, Calif., the Evaluators have completed nearly five years and 25,000 hours of accident-free flight hours – a significant accomplishment considering the squadron's mission of operational testing and evaluation and the number of different type planes the squadron flies. In the VX-4 stable are Grumman F-14 Tomcats, F-4 Phantoms, TA-4 Skyhawks, and the US-2B and C-1A logistics support aircraft.

Sky buddies. *In the first joint Navy/Air Force A-6 TRANSPAC, eight Intruders from VA-196 flew direct from NAS North Island, California, to NAS Barbers Point, Hawaii. Air Force KC-135's provided the inflight refueling and pathfinding. This TRANSPAC marked the beginning of VA-196's fifth WESTPAC cruise aboard the USS Constellation.*

Coping with stress



Maybe you feel it in your neck muscles first, or maybe you get a headache or your stomach acts up. Maybe you just want to run away and not let anyone know where you're going. Whatever your reaction is, you know what's causing it.

It's called stress. And, quite simply, stress can make you sick.

Stress has been defined as the body's response to an unpleasant stimulus, or one that is perceived as unpleasant...such as heat or cold, frustration, grief, personality clashes, insecurity, etc. Good or pleasant events -- a promotion, the birth of a child -- can cause stress as well, because they disrupt the pattern of a person's life and cause him to make adaptions.

No one's immune

People encounter stress in all areas of life. An unhappy marriage, financial worries, problems with children or aging parents are a few of the things that people go home to every day. But stress on the job -- occupational stress -- is currently receiving a great deal of attention.

Although the study of occupational stress is a relatively new one, it is one that vitally concerns industry. An individual who is reacting adversely to stress is going to be distracted at work or absent altogether; his productivity and effectiveness are damaged. In short, stress is expensive to industry. People are also becoming more aware of the effects of occupational stress on the quality of their lives. Work represents one third of your life; more than that if you worry about it on your own time.

The body's response to stress is a complicated one. Sometimes it is successful in adapting to the stress and builds up resistance toward it. However, if the stress is severe enough or continues for a sufficiently long period, the body loses its ability to adapt and becomes ill. High blood pressure, severe headaches, and peptic ulcers are examples of stress-related illnesses.

According to Dr. Vincent Gallagher of Grumman's Medical Department, the type of work a person does relates to the sort of illness he will develop.

"People who are in decision-making positions do seem to suffer the most stress," Gallagher says. "Narrowing that down even further, those who have to make decisions about people tend to have the greatest anxieties. From what I've seen, people at Grumman care a great deal about other people...and that sort of caring takes its toll. That responsibility, compounded by the lack of exercise that goes with a desk job, can contribute to high blood pressure and coronary heart disease.

Gallagher feels that a large portion of accidents are also related to stress. "I think a lot of accidents occur because a person is tense or upset about something. A guy who's operating heavy equipment when he's under stress and his mind is somewhere else is very, very vulnerable."

Jobs where a person has very little control over how things are done also seem to be very stressful, according to a recent study by the federal government's National Institute for Occupational Safety and Health. The study ranked 130 occupations according to stress...and the job of secretary was right near the top of the list. Typically, a secretary has too many people to please, and no one at all to yell at.

Gallagher cites poor communication on the job as another big source of stress. "Most people need to know just what is expected of them. When they don't know, when they have

no barometer for how well they're performing, they become anxious," he says. "Everyone needs a pat on the back once in a while."

Obviously, supervisors can contribute tremendously to stress. A boss whose managerial style ranges from criticizing and humiliating people for their shortcomings to trivializing or ignoring their accomplishments is going to have everyone reaching for the aspirin bottle. The epithet "pain in the neck" is often literally true.

Of course, supervisors have their problems, too...and one of the worst, according to Gallagher, is being in charge of people who resent a supervisor's authority. "They can make a boss's life sheer hell by resisting every suggestion and complaining about every order," says Gallagher. "It's a lot to cope with."

People who are ill-suited to their jobs also suffer stress, Gallagher notes. The outgoing, gregarious person whose job provides him with little or no opportunity for interacting with others will become fidgety, easily distracted, and a poor performer.

Coping

Some amount of pressure is good for us. You get up and go to work in the morning because you need a paycheck in order to eat. Many people claim that they actually enjoy stress -- that they work well under pressure. They have made stress work for them. They have made a game of it; stress has become for them an opportunity to accept a challenge and excel.

Stress is a fact of modern life...as unavoidable as traffic, bad news, and polyester. Everyone's job, everyone's homelife contains stress in varying amounts. What determines whether an individual will become ill because of stress is largely a matter of attitude.

"Assuming control of your life," says Gallagher, "is one of the keys to handling stress. You have to decide for yourself what your own capacity for stress is. An individual who perpetuates stressful relationships or stays in a job that makes him unhappy is relinquishing control of his life. When stress makes you ill, you're not running the show anymore.

"Finding an acceptable outlet for stress is a way of remaining in charge of your own happiness. Too often, people under pressure seek relief in things that are counterproductive...alcohol, overeating, smoking, etc. It doesn't work."

What does work? "Exercise, for one," says Dr. Gallagher. "If you have your doctor's ok, a good program of regular exercise can be a great way to work out tension. Getting enough rest and eating properly are also very important.

"Many people find that meditation works well for them, or volunteering their services for some form of social work. I think that being involved in a hobby can be an excellent way of working off stress.

"Talking things out is helpful, too," he adds. "People under stress frequently feel overwhelmed and alienated. Just knowing that someone else understands can be very reassuring.

"Once you've accepted that some stress is inevitable, you can decide just how much of it you're willing to put up with. From there, you can learn how to minimize the effect it has on your job, your health, and your life."

what do you think?

What's the status of the American family? Is it threatened -- or as healthy as ever. We recently asked Grummanites dining at Picnic in the Park for their opinions. What do you think? (Photos by Marie Trimborn)

Barbara O'Connell

The American family has a very good future. I believe that the idea of family is getting more important -- families are growing closer together. I see families that are content to be with one another. Despite all that you read about or hear about, the family unit in America will continue.

Burt Lindgren

The American family is here to stay. What's happened in recent years is just a passing fancy. Throughout history, society has undergone similar changes. Despite all the news on the decline of the family unit, a human being still has the need to be close to others, to be part of a family. Even in the most remote regions of the world, people have established family-like units. There's a sense of togetherness, of community spirit, of helpfulness and caring.

Paul Schwartz

I don't really think the American family is threatened. I think that people nowadays are leaning more and more towards the family. The family of the future might have fewer members, but the trend towards living together is going to die out soon. People are seeking longer lasting relationships ... something more permanent. They are also waiting a lot longer to have children; people want to enjoy life as a couple together, so they postpone starting a family maybe five or ten years.

Lorelei Daniels

The future of the American family is very threatened. A lot of people have gotten away from the church which may be a contributing factor. The family is losing a lot of its function now as it depends more and more on society to educate its children. This threatens the stability of the family. Society now picks up a lot of the things that the family used to be responsible for. But I think a lot of young people are steering back towards the traditional family unit. They are raising their children themselves instead of depending upon society to teach them values. Marriage is becoming a very serious proposition once again; people want to bring their children up the right way -- which is also called the "old way."

Charlie Lee

For a while, there was definitely a movement away from the family unit. I really think that now there is a trend back to the old, existing values. It may be that the young people are just tired of what they have tried and are returning to what is more familiar to them. I have seven children and 11 grandchildren. They all have a basically traditionalist point of view.

Jane Marino

Things are different today. Kids have to be on the move all the time. I was satisfied to stay home with my family. Young people today would be too bored with that. They take off to college and learn ideas that are different from ours. It's better for them -- they have more life than we did, they demand more out of life than we ever did. But even though families now live miles apart ... my daughter lives in Germany ... I've been doing more travelling now than I ever did.

calendar

Aikido Club: Every Mon. and Wed., 5 p.m., Pl. 35 cafe; for sport and self-defense; L.I. Aikido Federation; all guests welcome. B. Bauman, x2910/M. Stock, x7186.

Alcoholics Anonymous: every Mon., 5 p.m., Pl. 15 conference room C; closed meetings; Personnel Relations, x3521; Calverton: every Mon., 4-5 p.m., Headquarters Bldg; Great River: every Wed., 4-5 p.m., Pl. 43 conference room 3.

American Production and Inventory Control Society: Tues., Sept. 19, 6:30 p.m., Antun's, Hicksville; dinner, presentation: "Mgmt. Resource Planning;" guest speaker: Dick Alban; guests welcome. N. Heilweil, x2250.

Coin Club: Wed., Sept. 27, 12:05 p.m.; Pl. 25 vendor conference room; informal lunchtime meeting. K. Hale x3717.

Dance Club: every Wed., 5-8 p.m., Pl. 30 cafe, Sept. 13 hustle/Sept. 20 social at Uncle Sam's; friends and relatives welcome. E. Murway, x8128/M. Brown, x3262.

Duplicate Bridge Club: every Thurs., 6 p.m., Pl. 30 cafe; open competition; guests welcome. S. Campbell, x3382/F. O'Lear, x5120.

Equestrian Club: Mon.-Thurs., after hours, Mrs. D's, Woodbury; classes/trail rides; guests welcome. J. Borzell, x6865.

Fencing Club: every Tues., after 4:30 p.m., Pl. 30 cafe; both beginners and experienced fencers; instruction and competition; GAC employees and dependents welcome. P. Chaldaris, x4331.

Flying Club: Fri., Sept. 8, 5:00 p.m., Pl. 28 auditorium; regular monthly meeting; film presentation: "History of Flight, Part 3." R. Reisch, x3286.

Folk Dancers Club: every Tues., folk dancing, every Thurs., hustle and ballroom dancing; some instructions available lunchtime; receiving area Pl. 6; all welcome. E. Urciuoli, x(117)6688.

Model Railroad Society: every Wed., 5:30-9:30 p.m., Model RR Bldg. (at Pl. 3 rr crossing); regular meeting; guests welcome. R. Muntz, x(115)6044.

National Secretaries Association: Thurs., Sept. 21, 6:30 p.m.; Polish Independent Club, Marcy Ave., Riverhead; educational program; speaker: Muriel D. Currie, manager, Opportunity Development Compliance Program, Grumman Aerospace; Cornelis Keogh, CPS; guests welcome. E. Gais, x(117)7397.

Scuba Divers Club: Wed., Sept. 13, 7:00 p.m., Chateau Restaurant, Brentwood; scuba diving and dive related; guests welcome. A. Andreiev, x5540.

Society of Manufacturing Engineers: Mon., Sept. 11, 7:30 p.m. social hour, 8:00 p.m., presentation, Polytech. Inst. of N.Y., Route 110; guest speaker: Harold Wagner, Hewlett-Packard Corp.; guests welcome. A. Pinker, x6408.

NOTE: If you wish your professional society or club to post its activities in the PLANE NEWS calendar of events column, contact Kris Lane, Ext. 8999.

Preserving Grumman's hammer skills

"That's it, ... no, hit it a little harder - you really want to make it move. Good. Now work it all the way across."

The young trainee is the picture of concentration as he pulls the thin sheet of metal through the power hammer. His teacher shouts instruction and encouragement over the staccato noise of the machine.

The teacher is George Burkhardt, who's been a Grummanite for 47 years. His permanent number is 18, and he's got a small scar on his left thumb from a mishap when he was working on the FF-1. He's been on special assignment for the past few weeks, teaching a course on power hammering to six trainees.

"We've been thinking for a couple of years about running a course like this," says George. "We were losing our hammering skills. There was virtually no one left in the company who knew how to do it."

Yesterday and Today

Power hammering is a method of making aircraft skins by smoothing, stretching, and curving a sheet of metal into the appropriate configuration. Most of that work is now done - and done well - with the modern method of dies and drop hammers. The difference can be compared to that between a suit that is factory-sewn and one that is hand-tailored.

For instance, some of the work turned out by the drop hammer can be re-worked and refined by the power hammer. Power hammering is also used in the making of prototypes, eliminating the expense of a die that may have limited use.

"Power hammering is an art," says George. "It's a meticulous, painstaking process. It's not something you can pick up on your own; you have to learn it from someone who understands the technique."

The course is being taught in two 10-week sessions, with three students per class. The first group - Steve Coniker, Steve Parlitsis, and Roger Lawrence - graduated on August 4; the second class, Pete Van Hensbroek, John Bernall, and Henry Buchanen, are in training now.

All in the wrist. *Trainee Steve Coniker learns how to use a wooden chopper to pound a piece of sheet metal under Goerge Burkhardt's direction.*

"George is a terrific teacher," says Steve Coniker. "He can solve any problem you can come up with." Pete Van Hensbroek agrees. "He's the best ... he has infinite patience."

Although he thinks his students are bright, enthusiastic learners, George regrets that the business of building airplanes probably doesn't hold the same excitement for them that he felt in the 1930's.

"Aviation was in its infancy then ... it was pretty glamorous stuff," he says. "But I think the big difference was that we were all in the same plant ... maybe a thousand of us. And when the airplane was finished, we'd all go out to the airfield to watch it fly. We were so proud. That's all changed, of course, because the company is so big now. One part's made here, another there, subassembly in another place, and so forth. People at Grumman still take pride in their work, but they don't have the thrill of looking at the finished product and being able to say, 'I helped make that.'"

George goes back to work, showing a trainee how you can tell by the sound and the feel when you thump a piece of metal if you've done your work correctly.

"Just look at this one," he says, deftly turning a smooth, curved panel in his hands. "That's really well done ... not a ripple, not a mark on it. You can't tell that a hammer ever went near it. Isn't that beautiful?"

Learning by doing. *Roger Lawrence and Steve Parlitsis (R) operate the power hammer. By the end of the course, each trainee completes seven different projects. (Photos by Harry Prodromides)*

obituaries

SALVATORE GUARNOTTA of Mech. Dtl. and Finish, Plant 43, died August 21 at the age of 56. He had been with the company since 1959 and resided at 12 Sunset Ave., Farmingdale.

CHARLES A. ROONEY of B/P Warehouse, Plant 17, died August 18 at the age of 54. He worked for Gumman since 1952 and resided at 333 W. 14th St., Deer Park.

FRANK C. TALLEUR of Prod-Cntl-Parts, Plant 2, died August 17 at the age of 63. He had been with the company since 1955 and resided at 2 Wheatfield Lane, Commack.

Personals

My family and I wish to thank our many friends at Grumman and Employee Services for their kind expression of sympathy during the recent loss of my father. **Evelyn Crosman**

Memorial services will be held for Lt. Cdr. William Matthews, on Sunday, September 10, at the United Community Church in Wantagh at 4 p.m. Son of Grumman retiree John Matthews who worked for the company over 36 years, the Naval Flight Officer was lost at sea on July 16 when his F-14 disappeared during a simulated intercept mission from the USS Constellation. The family requests that friends support the scholarship fund in Bill's name which is being established in connection with the Wantagh High School Scholarship Fund.

Fellow diner halts breathtaking event

Being the fatal victim of a meatloaf is a dismal way to end your days. So when Larry Hahn started choking and turning blue in the Plant 40 cafeteria, Wally Zepf did the only thing he knew that might save his friend's life: he performed a simple technique called the Heimlich Maneuver.

"I had never seen it demonstrated," says Wally, "but I had read about it. When Larry started to choke, I just applied the information I had picked up. Thank God, it worked."

"It all happened so quickly," says Larry Hahn. "It's a terrifying feeling. I was lucky that Wally knew what to do. Quite literally, he saved my life."

To the rescue

A person who is choking on food will die of strangulation within four minutes unless his airway is cleared. By using the Heimlich Maneuver, you exert pressure that forces the diaphragm upward, compresses the air in the lungs, and expels the object blocking the breathing passage.

The American Heart Association, while approving the Heimlich method, suggests that first the rescuer should give four quick back blows, striking the victim between the shoulder blades.

The association makes this point as well: "If the victim has good air exchange, or only partial obstruction, and is still able to speak or cough effectively, do not interfere with his attempts to expel a foreign body."

If the victim has complete airway obstruction, and the four quick blows to the back do not work, proceed with the Heimlich Maneuver.

Here's how it's done:

- Stand behind the victim and wrap your arms around his waist, allowing his head, arms, and upper torso to hang forward.
- Grasp your fist with your other hand and place the fist against the victim's abdomen, slightly above the navel and below the rib cage.
- Press your fist forcefully into the victim's abdomen with a quick upward thrust.
- Repeat several times if necessary.

(If the victim is sitting, the rescuer stands behind the victim's chair and performs the maneuver in the same manner.)

- If the victim is lying face up, the rescuer faces him and kneels astride his hips.
- With one hand on top of the other, place the heel of the bottom hand on the abdomen slightly above the navel and below the rib cage.
- Press forcefully into the victim's abdomen with a quick upward thrust.
- Repeat several times if necessary.

Lunch buddies. *Larry Hahn (R) stops to chat with Heimlich Maneuverer, Wally Zenf.*
(Photo by Rich Breunig)

- If no help is at hand, victims should attempt to perform the Heimlich Maneuver on themselves by pressing their own fist into the abdomen as described.

According to the American Heart Association, precious minutes are often lost because bystanders believe the choking victim is having a heart attack. The difference is that the choking victim cannot speak, he turns blue, and collapses. The victim of a heart attack, initially, will still be able to speak.

Paving new roads

(Continued from page 1)

type of torsion bar, only ⅜ of an inch in diameter, that could possibly replace a more complex assembly in the original prototype. This contract could be worth millions of dollars to Grumman in future sales."

Grumman is planning to build the roof panels for all of DeLorean's production cars the first of which is slated to come off the production line in late 1979. DeLorean plans to manufacture 20,000 to 40,000 cars per year.

Grumman quality

"This needn't be a one shot deal," says August, "We want to get the Grumman name on a number of quality products so that when advanced composites come very much into play in the auto industry, to the tune of around 10-million pounds per year, we will be ready to apply the engineering and fabrication expertise that we've developed. And it's not like we are the new guys on the block, after all, Grumman already has a fine reputation in the transportation industry with its Olsen bodies, Howe fire trucks and ambulances and the Flxible bus."

"Advanced composites are the wave of the future," says Pelehach, "They are stronger, lighter and more durable than metal and they don't rust. The potential is enormous and exciting and is right in line with Grumman's plans for diversification."

A few years ago, John Z. DeLorean, one of General Motors' brightest executives left GM to strike-out on his own. He has been responsible for the engineering of the original Pontiac GTO, Firebird and Chevrolet Monte Carlo. Now he wants to build a car of his own, made of jet-age plastics and covered with a stainless steel skin. It would, "exhibit the ultimate of my art as an engineer," he said. Now with the help of Grumman, DeLorean's dream is fast approaching reality.

Hawkeye in new home

The only E-2C Hawkeye assigned to Navy RDT&E (Research, Development, Test and Evaluation) recently arrived at the Naval Air Test Center in NAS Patuxent River, Maryland.

"Hawkeyes have been in the fleet for about 16 years," explains Lt. Cdr. Jay Russell of Anti-Submarine Aircraft Test Directorate (ASATD), "but this is the first time one has been assigned to a Navy test and evaluation activity.

"The arrival of the E-2C at the test center is a real assist for E-2 programs -- and other programs as well," says VAW Branch Head Lt. Cdr. Russell. "This is the end result of more than four years of negotiation with the Chief of Naval Operations office and Naval Air Systems Command."

Prior to this agreement, "we had to borrow an aircraft from the fleet or from the Grumman Aerospace for each project, and the Navy had to accept the impact of this on production and fleet readiness," states Russell. "In addition, we weren't able to easily support other NATC projects with the E-2, and they, in turn, had to request fleet support in the same way."

Having an E-2C Hawkeye at Pax "will let us complete projects more quickly with a predictable schedule," continues Russell. "And we can support other projects on an as-needed basis without major negotiations and coordination. Of course, all this will result in cost-savings for the E-2 program and all the other programs that we support." The new addition to the NATC aircraft inventory will immediately become involved in a wide variety of projects. "The Hawkeye is beginning a series of modifications to keep it up to date through the end of this century," says Russell.

These updates will include changes to the communications systems, expansion to almost double the central computer memory capacity and major modifications to the radar antenna. Several engineering change proposals planned for the E-2C will also require evaluation. Each of these projects will require the services of the newest addition the NATC fleet.

retirees

On behalf of the fellow workers, PLANE NEWS salutes the following men and women for their contributions to the company and wishes them well in their retirement. Those who retire in September are:

Thomas Barnes (6), Albert Bursani (77), Clarence Heagney (2), James Usey Jr. (80), Frank Kratochvil (88), George Okun (40), Arthur Dattner (43), Frank Gaertner (30), Arthur Leuteman (30), William Peterson (12), Frankie Carter (2), Lenore Daw (21), Stanley Jastemski (2), James McCue (3), Charles Schmitt Jr. (30), Muriel Donato (1), Ronald Parsons (5), Charles Reisert (4), Richard Beardsworth (25), Helen Carney (2), Robert Knatz (15), Joseph Barbetta (5), Nicholas LaPorta (2), Harold Fredrickson (2), Anthony Mannino (12), Benedict Gaylo (81), Charles Meyers (2), Ellen Power (30), Oscar Peterson (2), Charles Howard (2), and Richard Adams (44).

GAA tennis tournaments -- smashing success

After four months of strenuous competition, the championship tennis tournaments at Bethpage and Calverton have finally wound down and all of the champions have been decided, except mixed doubles at Bethpage. At press time, Phil and Bernice Goldberg were to play Norman and Alicia Dvoskin in the last championship match of the season.

Some familiar names in Grumman tennis once again dominated the playoffs. At Bethpage, perennial women's champ Irene Gentile teamed with Dorothy Kouwenhoven to defend her half of the doubles title. Then in the singles, Gentile defeated Kouwenhoven in what was to be their toughest match, 6-4, 7-5. But Art and Bea Fischer kept Gentile from gaining a clean sweep as they defeated Irene and Gerry Fogel in the second round of mixed doubles in a grueling match, 6-3, 6-7, 7-5.

Results of these tournaments, round by round:

Women's Singles - Bethpage

First round: Annette Frisch def. Pauline Pearson 0-6, 6-4, 6-2; Mary Mikol def. Gloria Payne 6-1, 6-3; Pat Corino def. Penny Baldassare 6-4, 6-4; Barbara Wang def. Pat Ogilvie 3-6, 6-0, 6-2; Dorothy Kouwenhoven def. Frisch 6-1, 6-2; Kathy Housley forfeit to Mikol; Irene Gentile def. Corino 6-3, 6-3; Nancy McKendrick forfeit. to Wang.

Semi-finals: Kowenhoven def. Mikol 6-2, 6-4; Gentile def. Wang 7-6, 4-6, 6-3.

Finals: Gentile def. Kouwenhoven 6-4, 7-5.

Women's Doubles - Bethpage

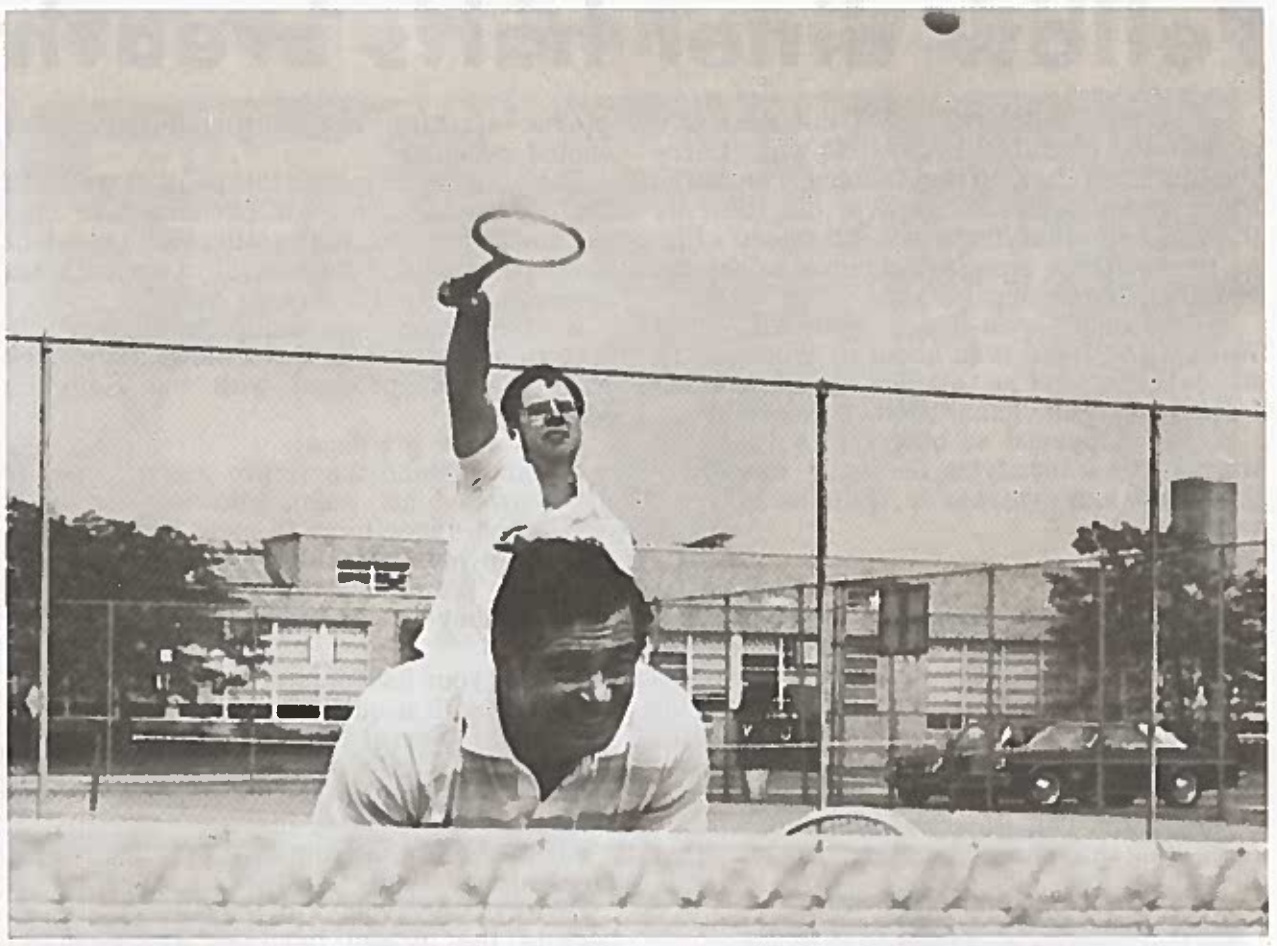
First Round: Pat Ogilvie/Joan Morris def. Penny Baldassare/Pauline Pearson 6-3, 7-5; Annette Frisch/Barbara Wang def. Kathy Housley/Pat Bilzi 6-1, 6-0; Marie Wood/Barbara Trapini def. Mary Mikol/Gloria Payne 6-2, 4-6, 6-0.

Semi-finals: Irene Gentile/Dorothy Kouwenhoven def Ogilvie/Morris 6-4, 6-1; Frisch/Wang def. Wood/Trapini 6-4, 6-0.

Finals: Gentile/Kouwenhoven def. Frisch/Wang 7-5, 6-1.

Convinced the dynasty of Al Kirillin and Tom Guarino had finally ended after five years at the top (they lost last year), "B" division singles champ Phil Goldberg and partner Pete Lampasona, buoyed-up after a tremendous win over Norm Dvoskin and Gerry Fogel, 7-6, 6-7, 7-5, took on the once and future champions. Guarino and Kirillin beat the challengers, 7-5, 6-4.

Then Bill Wenzel and Joe Distefano extended the pair to three sets before bowing 4-6, 6-1, 7-5. The final pretenders to the throne, Craig Langwost and Dick Kline also played a long match but finally lost to Kirillin and Guarino, 6-4, 6-4.



Cream of the crop. *With Tom Guarino, Vice President-Corporate Program Management, guarding the net, doubles partner Al Kirillin volleys. (Photo by Bob Settles)*

Men's Doubles - "A" Division

First round: Mel Rimer/Pete Shypryrevich def. Val Kirillin/Dick Reade 7-6, 6-4; Bill Jaklitsch/Gus Spyridon def. Richard Bergman/Robert Bentler 6-4, 6-2; Craig Langwost/Dick Kline def. Roy Harris/Al Andrus 2-6, 6-1, 6-3; Vin Casale/Bob Steele def. Jacques Cruzet-Pascal/Jay Leng 6-3, 6-3; Andy Kaufman/John Hsu def. John White/Gary Carney 6-2, 6-0; Al Kirillin/Tom Guarino def. Harvey Fromer/Jack Frishman 6-3, 6-1; Pete Lampasona/Phil Goldberg def. Norm Dvoskin/Gerald Fogel 7-6, 6-7, 7-5; Rimer/Shyprykevich def. Dave McKendrick/John Penn 6-2, 6-3; Clarence Wenzel/Joe Distefano def. Stan Teich/Tom Borehard 6-1, 6-3.

Quarter Finals: Langwost/Kline def. Jaklitsch/Spyridon 2-6, 6-7, 7-5; Kaufman/Hsu def. Casale/Steele 6-3, 6-2; Kirillin/Guarino def. Lampasona/Goldberg 7-5, 6-4; Wenzel/Distefano def. Rimer/Shyprykevich 6-4, 6-2.

Semi-Finals: Langwost/Kline def. Kaufman/Hsu 6-4, 6-7, 6-1; Kirillin/Guarino def. Wenzel/Distefano 4-6, 6-1, 7-5.

In the Doubles "B" division at Bethpage, Don Markarian and Jim Jehle had a much easier time of it. They didn't lose a set and were extended only once as they defeated John Michaelsen and John Rizzo 6-1, 6-4 in the semi-finals. No one else won more than three games in any set played against the champions. In fact, Jehle had enough stamina left over to cross the county line and win the Singles championship at Calverton, defeating Ed Clark in the finals.

If Clark was unhappy by the defeat, he rebounded in time to team up with Chick Robb to defeat Kurt Hofmann and Ed Troiani in the men's Doubles championship at Calverton.

The results of these tournaments, round by round:

Men's Doubles "B" Division

First round: Bob Owen/Ron Thuma def. Dick Simonds/Paul Shaw 5-7, 6-4, 6-4; Jim Campbell/Jim Casey def. Bill Peluso/Al Kocka 6-0, 6-2; Vin Accolla/Ed Poehlman def. Frank Dozal/John Ketcham 6-2, 7-5; Don Markarian/Jim Jehle def. Bill Bierds/Harvey Eidinoff 6-2, 6-2; Tony Antonucci/Don Canale def. Joe Fellinghan/Marty Lerner 6-3, 6-3; Steve Bodensiek/Pete Baena forfeit. to Jack Abramowitz/Larry Hewer; James Karnik/John Conover def. Bob Savassta/Don Nicosia 6-3, 5-7, 7-6; Tony Asaro/Bill Cheslock def. Paul Marino/Arnie Ferreri 6-1, 6-0; John Ince/Richard Engelbart def. Mike Verderosa/Tony Razziano 7-6, 6-1; Dick Strollo/Larry

Tennis aces. *Singles champ Irene Gentile serves while doubles partner Dorothy Kouwenhoven readies for the opponents return. (Photo by Marie Trimborn)*

Kollender def. George Moretz/John Breitfeller 0-6, 7-6, 6-0; Larry Buck/Mark Fortune def. John O'Toole/Al Stalb 4-6, 7-6, 6-3; Fred Tabick and Diron Panshookian forfeit. to Art Fischer/Bob Jarvis; Carlos Anderson/Howard Klein forfeit to John Castle/Bob Verzera; Allan Pifko/Alvin Levy def Randy Weiss/Joe Sousa 6-0, 6-1.

Second round: Bob Oglivie/Bob Nielsen def. Owen/Thuma 6-1, 6-3; Bill Hoover/Elmer Bauer def. Campbell/Casey 6-1, 6-0; Accolla/Poehlman def. Henry Pegamon/Ray Savino 6-1, 6-1; Markarian/Jehle def. Ed Ramirez/Ed O'Gara 6-3, 6-2; Antonucci/Canale def. Tim Sholinsky/Art Eckert 6-1, 6-2; Lou Pizzo/Dan Brady def. Frank Marconi/Frank Sobierajsi 6-2, 6-3; Abramowitz/Helner def. Doctor/Dinka 6-1, 6-0; John Michaelsen/John Rizzo def. Karnik/Conover 6-4, 6-2; Larry Bird/Frank Calderone def. Asaro/Cheslock 6-2, 6-2; Ince/Engelbart def. Les Murrin/Norm Naps 6-1, 6-2; Eberl/Lyons def. Les Spence/Ron Price 7-5, 6-1; Bob Schwarz/Steve Hambsch def. Strollo/Koellender 6-0, 5-7, 8-6; Buck/Fortune def. Don Brady/Mike Demeo 6-1, 7-6; Chuck Breweter/Craig Lemire def. Fischer/Jarvis 6-3, 6-4; Castle/Verzera def. Bill Bostrum/Sam Sciglio 6-1, 6-0; Pitko/Levy def. Lou Riedell/Ray Passalacqua 6-4, 4-6, 7-6.

Third Round: Olgilvie/Nielsen def. Hoover/Bauer 6-2, 6-2; Markarian/Jehle def. Accolla/Poehlman 6-1, 6-2; Pizza/Brady def. Antonucci/Canale 6-4, 4-6, 6-4; Michaelsen :/Rizzo def. Abramowitz/Helner 6-4, 6-2; Bird/Calderone def. Ince/Engelbart 6-3, 6-2; Eberl/Lyons forfeit. to Schwarz/Hambsch; Brewster/Lemire def. Buck/Fortune 4-6, 6-4, 7-6; Castle/Verzera def. Pitko/Levy 6-4, 6-2.

Semi-Finals: Markarian/Jehle def. Michaelson/Rizzo 6-1, 6-4; Bird/Calderone def. Castle/Verzera 6-2, 6-3.

Finals: Markarian/Jehle def. Bird/Calderone 6-1, 6-3.

Men's Singles - Calverton

First round: Paul Sachse def. Kurt Hofmann; Phil Gribbons def. Jim Barrie; Art Pugliese def. Frank Fleming; Ed Clark def. Dick Kupezyk; Dick Kinsella def. Ed Troianni; Chuck Darling def. Butch Kruse; Gaelen Becker def. Manny Mauricio; Marv Thorne drew a bye; Fred Avril def. Ray Caggiano; Gary Mauch def. H. Stiles; Al Andrus def. Cliff Lennon; Joe Lazar def. Stan Nilsen; Dave MacIntosh def. Jim Knipe; Ed Cantrell def. Dave Kalskry; Chick Robb def. Gerry Miller; Jim Jehle, bye.

Second round: Sachse def. Gribbins; Clark def. Pugliese; Darling def. Kinsella; Thorne def. Becker; Avril def. Mauch; Andrus def. Lazar; MacIntosh def. Cantrell; Jehle def. Robb.

Quarter finals: Clark def. Sachse; Darling def. Thorne; Andrus def. Avril; Jehle def. MacIntosh.

Semi-Finals: Clark def. Darling; Jehle def. Andrus.

Finals: Jehle def. Clark.

Men's Doubles - Calverton

First round: Knipe/Kruse def. Barrie/Mauricio; MacIntosh/Kinsella def. Pugliese/Stiles; Thorne/Sachse def. Kupczyk/Congro; Hofman/Troianni def. Moran/Neu; Lennon/Lazar def. Bauman/Miller; Clark/Robb def. Gribbins/Kelskey; Fleming/Nilsen def. Diem/Pipczynski; Jehle/Becker def. Caggiano/Cantrell; Frei/Darling def. Knipe/Kruse.

Second round: Thorne/Sachse def. MacIntosh/Kinsella; Hofmann/Troianni def. Lennon/Lazar; Clark/Robb def. Fleming/Nilsen; Jehle/Becker def. Frei/Darling.

Semi-finals: Hoffman/Troianni def. Thorne/Sachse; Clark/Robb def. Jehle/Becker.

Finals: Clark/Robb def. Hofmann/Troianni.

Chick Robb almost became a multiple winner, teaming up with Maureen Leone in the mixed doubles. However, Debbie Zackman and Chuck Darling proved too strong for the pair and they had to settle for second best.

But this was to be Leon's last defeat as she swept women's singles and doubles; first defeating Mona Collins for the singles title and then teaming up with Debra Weaver to outduel Edie Hofman and Debbie Zackman.

The results of these tournaments, round by round:

Mixed Doubles - Calverton

First round: Thorne/Boyle drew a bye; Gribbins/Gribbins def. Frei/Frei; Clark/Welsh def. Knipe/Antes; Robb/Leone def. Barrie/Barrie; Darling/Zackman drew a bye; Sachse/Weaver def. Aquaro/Varady; Becker/Strickland def. Caggiano/Caggiano; Hofman/Hofman def. Kruse/Boyd.

Second round: Thorne/Boyle def. Gribbins/Gribbons; Robb/Leone def. Clark/Welsh; Darling/Zackman def. Sachse/Weaver; Hofmann/Hofmann def. Becker/Strickland.

Semi-finals: Robb/Leone def. Thorne/Boyle; Darling/Zackman def. Hofmann/Hofmann.

Finals: Darling/Zackman def. Robb/Leone.

Women's Singles - Calverton

First round: Edie Hofmann drew a bye; Mona Collins def. Yvonne Strickland; Debbie Zackman def. Debra Weaver; Maureen Leone drew a bye.

Semi-finals: Collins def. Hofman; Leone def. Zackman.

Finals: Leone def. Collins.

Women's Doubles - Calverton

Strickland/Collins def. Matbini/Varady; Zachman/Hofmann def. Weaver/Leone; Weaver/Leone def. Mataboni/Varady.

Semi-finals: Zachman/Hofmann def. Strickland/Collins; Weaver/Leone def. Strickland/Collins.

Finals: Weaver/Leone def. Zachman/Collins.

Calverton champs. *Winners of the Calverton tennis classic are: (L to R) top row - Ed Clark and Chick Robb, Jim Jehle; bottom row - Chuck Darling and Debbie Zackman, Debra Weaver and Maureen Leone. (Photos by Gerry Costello)*

Scorecard

Family dynasty?

The Bunzel family is making a habit of finishing first in Mixed Pinehurst play. On July 26, Eric and Marilyn Bunzel shot a 43 on the Blue course at Bethpage to take top honors. Then, on August 23, George and Peggy Bunzel tied for first place on the Yellow course with a low gross of 41. Jim Minsky and Debbie Monrow kept the Bunzels from starting a golf cartel by tying George and Peggy.

Varisty eliminated

The Grumman women's varsity softball team ended its season in Chattanooga, Tennessee, when Dupont shut out the varsity, 18-0. In the first game of the double elimination tournament, Combustion Engineers of Charlotte showed a little southern hospitality before winning 9-8. The varsity came back from an 8-0 deficit, but couldn't quite hold the Engineers.

Harvest time

Thursday, September 14 is harvest time for Grumman gardeners. The annual Garden Forum's Fall Show takes place that day in the Plant 35 cafeteria.

Brochures featuring show rules and entry categories are available at all Employee Services (ES) offices. If you have any additional questions, call Dot Kappenberg, Ext. 5465.

Touchdown

Tickets are now on sale for two college football classics. The annual Grambling-Morgan State game at Yankee Stadium on Saturday, September 23 is sponsored by the N.Y. Yankees in association with the New York Urban League for the benefit of the Whitney M. Young Jr. Memorial Scholarship fund. Admission is $10.

On Saturday, November 4, the West Point Black Knights take on the Air Force Falcons, at Michie Stadium, U.S. Military Academy, N.Y. Tickets for this annual event are $8. Round trip bus tickets are also available for $5 per person.

All tickets can be purchased at the GAA office, Ext. 2133 or 2269, next to Plant 2.

Let's Dance

Searching for something different in entertainment?

Try the Grumman Dance Club Social at Uncle Sam's.

Located on Hempstead Turnpike in Levittown, Uncle Sam's opens its disco doors to all Grummanites on the third Wednesday of every month from 5 to 8 p.m. Admission is $1; friends and family members are also invited to don their dancing shoes.

Waller wins GAA golf championship

Some golfers complained about the weather conditions on Tuesday, August 22, the day of the annual GAA Golf Championship and Kickers Tourney. They claimed that they were used to playing in high humidity, and overcast skies. They weren't used to clear blue skies and warm dry air.

But there was one fellow who managed to adjust to the weather conditions. It took Don Waller Jr. only 77 strokes to complete the trek around Pine Hills Country Club course in Hauppauge.

So when Mke Cherry, GAA tourney director, announced that Don was the low gross winner of the tourney, the attendees gave him a big hand.

They followed suit when the other tourney winners were called to receive their trophies. Howard Fraser walked away with low gross honors in the seniors division (over 50 years of age) for his 84. In the women division, Kathy Housley won low gross (107) and longest drive honors. Runner-up in the low gross men's competition was Steve Riselvato (82).

Capturing low net trophy honors were Bob Silhan, 69; senior Ed Sautkulis, 69; John Pavlat, 69; Don Bostrom, 71; senior Pete Martin, 70.

Tom Palmeri slammed the ball over 290 yds. for longest drive honors, while Frank Zolezzi shot closest to the pin.

After the top golfers were honored for their feats, Mike Cherry conducted the kicker's prize drawing. And as traditional at a GAA golf outing, everyone drove home a winner. The scores were:

Don Waller Jr. 77; Steve Riselvato 82; Bruce Hurley 83; Doug Keuling 83; Art Donato 84; Howard Fraser 84; Don Bostrom 84; Dave Marks 85; Ken Keen 85; Tom Palmeri 86; Stan Bartoszak 87; Brad Clark 87; Howie Anderson 88; George Lewis 88; Don Waller 89; Bob Riehl 89; Ed Sautkulis 89; Pete Martin 89; Ed Zolkoski 89; Red Hafter 90; Ted Placek 91; and Bob Silhan 91.

Al Andrus 92; Don Combes 93; Ed Bomer 94; Nick Roscigno 95; Lee Yager 95; George Pennecke 95; Tony Miller 96; Walter Genega 96; Frank Zolezzi 96; Harold Cook 96; Jack Strong 97; Al Kirshberg 97; Tom Barbero 97; John Benz 99; and Ed Zeb 99.

Dick McGlade 100; Sy Dawer 100; Bill Halverson 100; Dick Orr 101; Dan O'Donnell 101; Tom Davis 101; Vin Clerico 102; Jim Tambino 102; John Komst 103; Siegfried Goetz 103; Mike Solan 104; Bill Constanzo 105; George Franke 105; Frank Heaney 105; Nick Genega 105; Ron Pond 105; Charles Kelly 105; George Doris 105; Jerry White 105; Fred Avril 105; Bill Tebo 106; Mike Latorre 106; Harry Hanson 107; Ken Crawford 107; Kathy Housley 107; and Chuck Clark 108. Joan Pavlat 109; Dick Dillinger 109; Jerry McMahn 109; Bill Gander 110; Joe Nissly 111; Bill Jorch 112; Pete O'Donnell 113; Joan Plocek 114; Paul Hynes 114; Walt Langendorf 114; Val Carmody 116; Vin Slama 120; John Cunneen 120; Frank Azzarella 124; Frank Zuk 137; John Marshall 156.

All smiles. *Top winners at the GAA golf championship tourney gather to show off their trophies.*

Heads up. *Members of the New York Apollo professional soccer team recently gave a clinic for interested Grummanites at Bethpage who learned that there's more than one way to dribble a round ball. The Apollo striker using his head is Mike Mancini. (Photo by Rich Breunig)*

GRUMMAN plane news

ADDRESS CORRECTION REQUESTED

BULK RATE
POSTAGE PAID
HICKSVILLE, N.Y. 11802
PERMIT NO. 1110

Vol. 37, No. 14, September 8, 1978, Bethpage, N.Y. 11714